



Extreme weather and climate events, and farming risks

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Book: Managing Weather and Climate Risks in Agriculture
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Abstract:

Extreme weather events, and climatic anomalies, have major impacts on agriculture. Of the total annual crop losses in world agriculture, many are due to direct weather and climatic effects such as drought, flash floods, untimely rains, frost, hail, and storms. High preparedness, prior knowledge of the timing and magnitude of weather events and climatic anomalies and effective recovery plans will do much to reduce their impact on production levels, on land resources and on other assets such as structures and infrastructure and natural ecosystems that are integral to agricultural operations. Aspects of crop and livestock production, as well as agriculture's natural resource base, that are influenced by weather and climatic conditions include air and water pollution; soil erosion from wind or water; the incidence and effects of drought; crop growth; animal production; the incidence and extent of pests and diseases; the incidence, frequency, and extent of frost; the dangers of forest and bush fires; losses during storage and transport; and the safety and effectiveness of all on-farm operations (Mavi and Tupper 2004).

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Resource Description

Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Special Report on Emissions Scenarios (SRES), Other Climate Scenario

Special Report on Emissions Scenarios (SRES) Scenario: SRES A1, SRES A2, SRES B1, SRES B2

Other Climate Scenario: A1B;A1F;A1T

Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Food/Water Security, Precipitation

Extreme Weather Event: Drought, Flooding, Other Extreme Event

Extreme Weather Event (other): Frost;Hail;Storms

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Food/Water Security: Agricultural Productivity, Livestock Productivity

Geographic Feature: 

resource focuses on specific type of geography

None or Unspecified

Geographic Location: 

resource focuses on specific location

Global or Unspecified

Health Impact: 

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Intervention: 

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation: 

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology: 

type of model used or methodology development is a focus of resource

Outcome Change Prediction

Population of Concern: A focus of content

Population of Concern: 

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status, Workers

Resource Type: 

format or standard characteristic of resource

Review

Timescale: 

time period studied

Long-Term (>50 years)

Vulnerability/Impact Assessment: 

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

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